UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Entomology and Plant Quarantine

Forest Insect Laboratory,
Fort Collins, Colorado,
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MEMORANDUM ON INSECT CONDITIONS ON
THE POWELL NATIONAL FOREST, UTAH

At the request of the Forest Service Regional Office in Ogden J. A. Beal of the Fort Collins Forest Insect Laboratory spent two days early in June looking over some of the insect control work on infestations of the Black Hills beetle on the Powell National Forest. During most of this time Supervisor A. C. Folster and Ranger S. Bryson Cook were present on the examination. Since the available time did not permit an examination of the entire ponderosa pine area of the Powell National Forest that was covered by control work during the past winter the only areas examined were the Pine Lake area and some of the areas along the East Fork of Sevier River, principally Skunk Hollow and Blubber Creek.

The Pine Lake area appears to be relatively free from infestation at the present time and the control work that was done there appears to have been thoroughly and efficiently conducted. Unfortunately the surveys which were run on the Powell last year did not indicate as many infested trees as have been found during the treating work and it is therefore not going to be possible to clean up the Forest this year on the money allotted for control work. According to Lowell Farmer's memorandum of May 16 there were estimated to be 3180

trees requiring treatment whereas the actual number found is nearly 4500 trees. All of the units with the single exception of Blue Fly and Park areas ran considerably higher than the number estimated. Just how many trees will be left untreated is not definitely known. It is known, however, that they will occur largely in the East Fork of the Sevier River drainage, probably in the Skunk Hollow, Blubber Creek, Mill Creek and the Swapp Creek areas. The last two named areas are probably not as heavily infested as are the others. In this connection De Leon says in his memorandum of December 1, 1938, regarding the Mill Creek area, "If funds are available next spring for cleaning up this area I feel that this should be done, especially on Swapp Creek, but I do not think that the control work in the more accessible areas where treating has already been done in the areas between these heaviest infestations should be slighted in an effort to treat the Mill Creek area."

Treating is still under way in the East Fork area and we had an opportunity to examine a large number of infested trees and decks prepared for burning. In the thick timber the logs, tops, and limbs are being snaked into the parks for treating because of bad burning conditions. Salvageable logs are being hauled to a small sawmill near Panguitch where they are sawed at once and the slabs burned. All of this year's treating that we saw appeared to be well done. I feel, however, that foreman Rolley was putting too much effort in getting good logs for the mill rather than thoroughly cleaning the

area as he went and that this might result in duplicate work in trying to treat small trees or tops and limbs left by the loggers. His method was contrary to instructions by the ranger and this condition was immediately corrected. Because of lack of funds this year's treating will be terminated about June 20 with an undetermined number of infested trees remaining in the East Fork area.

Infested trees, both standing and felled, and limbs and stumps were examined for the amount, stage of development and dispersal of broods of the Black Hills beetle. In all we probably examined more then a hundred trees scattered over considerable area although no attempt was made to examine all infested trees. In all trees examined broods were extremely vigorous and heavy. They were found from the stumps to small tops and even in small limbs. The insects occurred chiefly as mature larvae and pupae with a few callow adults. The broods are so heavy that they occupy practically all available inner bark of infested trees and it is difficult to see how more insects could find enough food and spacein these trees to enable them to reach maturity. I would classify this infestation as very aggressive.

In the Skunk Creek area, part of which was covered last year, there was some question as to where the reinfestation was coming from. Therefore some of the nearby canyons covered last year were carefully examined. A number of red-top trees were found which should have been treated during last year's control work. A few of these had been marked, some had been cut into and a number had not been examined.

No attempt was made to cover a large area or to examine all of these trees but about twenty-five such trees were found in one small canyon from which heavy emergence had taken place. In the same general vicinity large groups of trees had been treated by felling and burning them in place. Many of the thicker bark trees had not been sufficiently burned to kill the insects and the existing emergence holes often on the lower ten to twenty feet of these trees were ample proof that large numbers of insects had escaped. The missing of trees may be attributed to attempts to cover too wide a strip in the spotting work, and the innefficient burning is probably due to lack of sufficient inspection by foremen on "bug" control.

It is evident that there still exists on the East Fork of the Sevier an aggressive infestation of the Black Hills beetle and every effort should be made to clean up this infestation next year. In my opinion the survey should be increased from a 2½ to a 5 percent survey. It will probably require about $700 to thoroughly survey the areas that should be covered this year. In areas of known infestation money should be made available early in the fall for early spotting and control work, particularly in the high country, in order to get this work done before the heavy snows come. This should insure completion of the entire project and prevent a repetition of the condition occurring on parts of the forest at the present time. We will make every effort to have D. A. Hester of the Fort Collins office go over the Powell with the man who will be conducting the survey and assist

him in planning the work. It would also be advisable to have him assist in organizing the spotting work and in training the spotters. An attempt should be made to obtain an experienced "bug control" man to replace Farmer who has been assigned to other work.

Respectfully submitted,

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